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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/417,705	10/13/1999	JUNYA KAKU	991142	7820

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EXAMINER

NGUYEN, LUONG TRUNG

ART UNIT	PAPER NUMBER
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2612

DATE MAILED: 08/01/2003

4

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/417,705

Applicant(s)

KAKU, JUNYA

Examiner

LUONG T NGUYEN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 October 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

2. Claim 9 is objected to because of the following informalities:

Claim 9 (line 1), "said memory" should be changed to "said main memory".

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 5, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi (US 5,734,427) in view of Hirabyashi et al. (US 6,295,596).

Regarding claim 1, Hayashi discloses a digital camera, comprising an image sensor having a first resolution (CCD image sensor 12, figure 1, column 2, lines 60-67); a timing generator for reading a first resolution image signal from said image sensor (the image sensor 12

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outputs an electric signal representative of the incident image and delivers signal to preprocessing circuit 14, figure 1, column 2, line 58 – column 3, line 5. Therefore, a timing signal is inherently included in the camera); a first processor for performing predetermined signal processing on said first resolution signal (YC processing 18, figure 1, column 3, lines 16-32); a thinning-out circuit for thinning out said first resolution image signal outputted from said first processor and creating a second resolution image signal with a resolution lower than said first resolution (movie processing circuit 20, figure 1, column 2, lines 52-56); a main memory (memory 32, figure 1, column 3, lines 55-65).

Hayashi fails to specifically disclose a main memory having at least two memory areas; a selector for selecting alternately said two memory areas; a write controller for writing said second resolution image signal to one of said two memory areas based on an output of said selector; and a read controller for reading a second resolution signal from the other of said two memory areas based on an output of said selector. However, Hirabayashi et al. disclose memory 11 (SDRAM) has two banks A and B, the data can be written and read out, independently of each other, these banks can be switched (figure 1, column 4, line 63 – column 5, line 3). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Hayashi by the teaching of Hirabayashi et al. in order to obtain a device in which data can be read out fast by switching the banks (column 6, lines 29-30).

Regarding claim 5, Hayashi discloses a monitor (monitor 29, figure 1, column 3, lines 45-50).

Regarding claim 9, Hayashi discloses the memory has a single signal input/output port (figure 1, memory 32).

5. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi (US 5,734,427) in view of Hirabyashi et al. (US 6,295,596) further in view of Parulski et al. (US 6,292,218).

Regarding claim 2, Hayashi and Hirabyashi et al. fail to specifically disclose wherein said timing generator reads out said first resolution signal in an amount of one screen at an interval of a first predetermined period, and said read controller reading out said second resolution image signal in an amount of one screen at an interval of a second predetermined period shorter than said first predetermined period. However, Parulski et al. disclose an electronic camera in which the motion review mode (second resolution signal) uses a shorter image readout period than the still mode (first resolution signal, see abstract, column 5, lines 20-35). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Hayashi and Hirabayashi et al. by the teaching of Parulski et al. in order to obtain a camera in which the digital image processing is more elaborate (column 5, lines 1-10).

Regarding claim 3, Parulski et al. disclose wherein the second predetermined period is $1/N$ of the first predetermined period (column 5, lines 20-35, Parulski et al. disclose system oscillator 100 produces a 12mHz clock frequency for use in motion mode (corresponding to second predetermined period) while produces a 6 mHz clock frequency for use in still mode (corresponding to first predetermined period)).

Regarding claim 4, Hirabayashi et al. disclose the selector alternately switches for a memory area to be selected at an interval of said first predetermined period (column 6, lines 64-67).

Allowable Subject Matter

6. Claims 6-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 6, the prior art of the record fails to show or fairly suggest a digital camera, comprising a second processor for outputting at predetermined timing a first disable signal, a second disable signal and a third disable signal in response to operation of said instruction key; wherein said thinning-out circuit being disabled by said first disable signal simultaneously with the operation of said instruction key, said read controller being disabled by said second disable signal simultaneously with the operation of said instruction key, and said write controller writing said first resolution image signal outputted from said first processor to said main memory and disabled by said third disable signal after said first resolution image signal in an amount of one screen has been written.

Claims 7-8 are allowable for the reason given respect to claim 6.

Conclusion

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7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wilder et al. (US 5,262,871) disclose multiple resolution image sensor.

Ito et al. (US 5,428,389) disclose image data storage/processing apparatus.

Saito (US 5,463,419) discloses image signal processing device for thinning images.

Watanabe et al. (US 5,920,343) disclose imaging system with image processing for re-writing a portion of a pixel block.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Luong Nguyen** whose telephone number is (703) 308-9297. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Wendy Garber**, can be reach on (703) 305-4929.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231
or faxed to:

(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

LN LN
7/27/2003


NGOC-YEN VU
PRIMARY EXAMINER